

HOOD CANAL – SKOKOMISH CHINOOK

In 1992 this stock was a part of the Hood Canal summer/fall chinook stock and did not receive a separate status rating.

STOCK STATUS

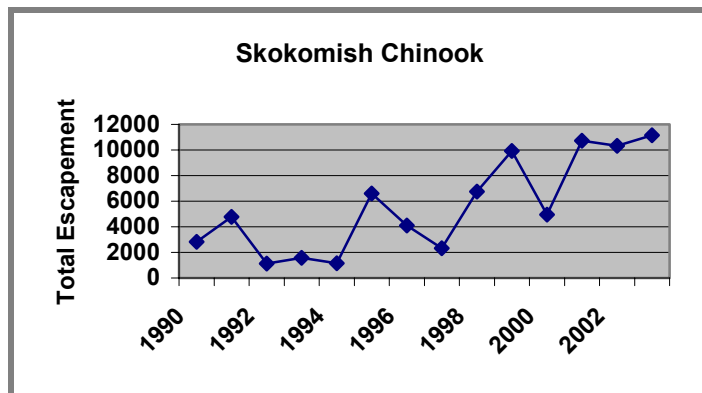
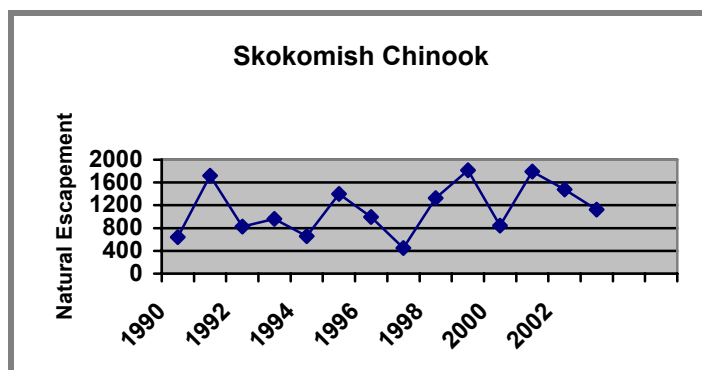
1992 STATUS
Not rated

2002 STATUS
Depressed

STOCK STATUS RATING DATA

USEFULNESS FOR RATING STOCK STATUS: *Good*

YEAR	NATURAL ESCAPEMENT	HATCHERY ESCAPEMENT	TOTAL ESCAPEMENT
1990	642	2,186	2,828
1991	1,719	3,068	4,787
1992	825	294	1,119
1993	960	612	1,572
1994	657	495	1,152
1995	1,398	5,196	6,594
1996	995	3,100	4,095
1997	452	1,885	2,337
1998	1,177	5,584	6,761
1999	1,692	8,227	9,919
2000	962	4,313	4,959
2001	1,913	8,816	10,729
2002	1,479	8,834	10,313
2003	1,125	10,034	11,159



Estimates of naturally spawning chinook are based on counts of live spawners and/or redds in the mainstem Skokomish from RM 2.2 to 12.7, in Purdy Creek from RM 0.0 to the George Adams hatchery rack, and in the South Fork Skokomish RM 0.0 to 5.5. Hatchery escapements are based on counts at the George Adams Hatchery rack on Purdy Creek, a lower Skokomish River tributary. The total escapement values for this stock are the sums of the natural and hatchery escapements.

The escapement goal for the stock is 3,150 adult spawners (1,650 natural spawners and 1,500 at the George Adams Hatchery). The total goal for the stock has generally been met primarily because hatchery escapements have exceeded the hatchery goal in most years. However, the

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goal for natural spawners has been met only three times since 1990. The stock is rated **Depressed** in 2002 because of **chronically low** natural escapements.

STOCK DEFINITION

Skokomish chinook were identified as a stock in 2002 based on their distinct spawning distribution.

SPAWNING DISTRIBUTION: Spawning takes place in the mainstem Skokomish, in the lower portions of the North and South forks of the Skokomish, and in Purdy, Vance and Hunter creeks. Hatchery spawning takes place at George Adams Hatchery.

SPAWNING TIMING: Spawning generally occurs from mid-September through October with peak spawning in mid-October.

GENETIC ANALYSIS: Allozyme analysis results to date suggest that there is no significant genetic differentiation between Skokomish natural chinook spawners and George Adams Hatchery/Hoodsport Hatchery chinook. Extensive transfers of South Sound hatchery chinook to George Adams and Hood Canal hatcheries have taken place. However there appears to be some differentiation between Hood Canal-area chinook and South Sound chinook, indicating that some level of differentiation may be occurring in Hood Canal stocks following the cessation of transfers from South Sound hatcheries. Although allozyme allele frequency divergence is not evidence of local adaptation, it often signifies reproduction isolation. Local adaptations are more likely to be maintained in populations that are reproductively isolated (Marshall 2000).

STOCK ORIGIN

The Skokomish chinook stock is a **mixed** stock with **composite** production. Chinook returning to the George Adams Hatchery or Endicott Ponds on the lower Skokomish River stray in substantial numbers onto Skokomish system natural spawning areas.